

IN THE CLAIMS:

Claims 33-40 were presented in the previous Amendment (Amendment B). All pending claims and their present status are produced below.

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
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22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)
32. (Canceled)
33. (Currently amended) A method of predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server and having a path, the method comprising:
determining, for each thread of the application, a set of application factors
corresponding to a set of functions performed by the application, the
application factors being independent of the network and of a network flow
control protocol, the application factors comprising average packet size and
average node send time;
determining a set of network delay times corresponding to a series of network delay
sources along the multi-hop network path, the network delay sources
comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of
a transmission delay, a constant delay, and a node delay;

determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server, wherein said determining a set of network flow factors comprises generating a histogram of node send time and determining the number of turns added per direction based on the histogram;

determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and
determining a total response time based on the durations of the threads.

34. (Canceled)

35. (Currently amended) An apparatus for predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server and having a path, the apparatus comprising:

means for determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

means for determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

means for determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server, wherein said means for determining a set of network flow factors comprises means for generating a histogram of node send time, and means for determining the number of turns added per direction based on the histogram;

means for determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and means for determining a total response time based on the durations of the threads.

36. (Canceled)

37. (Currently amended) A computer readable medium comprising computer readable instructions which, when executed by a processing system, cause the processing system to perform a method of predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server and having a path, the method comprising:

determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

determining a histogram of node send time;

determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server, wherein the number of turns added per direction is based on the histogram;

determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and

determining a total response time based on the durations of the threads.

38. (Canceled)

39. (Currently amended) An apparatus for predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server and having a path, the apparatus comprising:

application factor logic for determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

delay time logic for determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;
histogram logic for generating a histogram of node send time;
flow factor logic for determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server,
wherein the number of turns added per direction is based on the histogram;
first duration logic for determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and
second duration logic for determining a total response time based on the durations of the threads.

40. (Canceled)